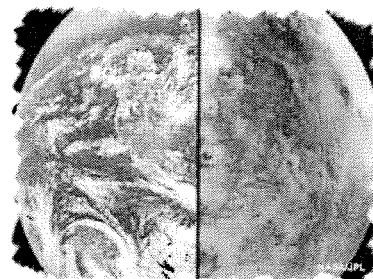


Elements

All **elements** are made of **atoms**. **Elements** are the building blocks of all matter. As far as we know, there are only so many basic **elements**. Up to this point in time we have discovered/created over 100. While there may be more out there to discover, the basic **elements** remain the same. Iron (Fe) **atoms** found on Earth are identical to iron **atoms** found on meteorites. The iron **atoms** on Mars that make the soil red are the same too.



IRON ATOMS ON
EARTH AND MARS ARE
EXACTLY THE SAME

Elements are substances that cannot be separated into simpler substances. Salt is made up of the **elements** sodium and chloride. Water is made up of the **elements** hydrogen and oxygen.

An **element** is a chemical made up of one kind of **atom**. The known **elements** are listed on a chart called the Periodic Table. The **elements** are not randomly placed on the table. Instead, they are listed in order of their **atomic** number. Each **element** has its own **atomic** number which identifies it from all the other known **elements**. For example, the **atomic** number for the element hydrogen, H, is 1. This means that all the **atoms** of hydrogen have the same **atomic** number, which is 1. It's the **atoms** that are different and unique, even though they are made of the same pieces.

Periodic Table of Elements																																													
IA																		IIA												IIIA		IVA		VA		VIA		VIIA		0					
1		2																		3		4												5		6		7		8		9		10	
H																				Li		Be												B		C		N		O		F		Ne	
3		4																		11		12												13		14		15		16		17		18	
Na		Mg																		Al		Si												P		S		Cl		Ar					
19		20		21		22		23		24		25		26		27		28		29		30		31		32		33		34		35		36											
K		Ca		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr											
37		38		39		40		41		42		43		44		45		46		47		48		49		50		51		52		53		54											
Rb		Sr		Y		Zr		Nb		Mo		Tc		Ru		Rh		Pd		Ag		Cd		In		Sn		Sb		Te		I		Xe											
55		56		57		72		73		74		75		76		77		78		79		80		81		82		83		84		85		86											
Cs		Ba		*La		Hf		Ta		W		Re		Os		Ir		Pt		Au		Hg		Tl		Pb		Bi		Po		At		Rn											
87		88		89		104		105		106		107		108		109		110																											
Fr		Ra		*Ac																																									

* Lanthanide Series

+ Actinide Series

58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu
90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No	103 Lr